

ABSTRACT OF THE DISCLOSURE

An aerosol tip mechanism for an aerosol-type dispenser for dispensing liquid content has a flexible outer shell, a rigid cap portion composed of lower and upper portions, and a rigid nozzle portion having a rigid shaft received within the outlet portion of the flexible outer shell. The rigid shaft interfaces the outlet portion of the outer shell, forming a first normally-closed one-way valve. The lower and upper portions of the rigid cap portion form boots adapted to receive an outlet portion of the flexible outer shell, the boots thereby constraining a lateral motion of the outlet portion of the outer shell, and symmetrically centering the outlet portion around the rigid shaft of the nozzle. The rigid nozzle portion includes a plurality of liquid channels for delivering liquid from a reservoir to a swirling chamber defined within the rigid cap portion, which liquid channels are configured to minimize energy losses of the liquid and promote a more homogeneous fluid particle size in the dispensed aerosol. The aerosol tip mechanism provides for long-term sterility of the stored fluid, which in turn allows for preservation of the sterility of non-chemically preserved formulations, which may be in the form of suspension or liquid gels.